

Sequence Listing

<110> Baker, Kevin
 Botstein, David
 Eaton, Dan
 Ferrara, Napoleone
 Filvaroff, Ellen
 Gerritsen, Mary
 Goddard, Audrey
 Godowski, Paul
 Grimaldi, Christopher
 Gurney, Austin
 Hillan, Kenneth
 Kljavin, Ivar
 Napier, Mary
 Roy, Margaret
 Tumas, Daniel
 Wood, William

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Cys Cys Gln Thr Cys Pro Gln Glu Arg	Ser Ser Ser Glu Arg Gln	125	130	135
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Gly Asp Gly His Thr Asp Phe Val Ala	Leu Leu Thr Gly Pro Arg	170	175	180
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TE90-46466

SECRET

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Lys	Thr	Gly	Gln	Lys 185	Val	Val	Glu	Met	Lys 190	Trp	Asp	Gln	Val	Glu 195
Val	Ile	Pro	Asp	Ile 200	Ala	Cys	Gly	Asn	Ala 205	Ser	Ser	Asn	Ser	Ser 210
Ala	Gly	Gly	Arg	Leu 215	Val	Ser	Phe	Glu	Val 220	Pro	Gln	Asn	Thr	Ser 225
Val	Lys	Ile	Arg	Gln 230	Asp	Ala	Thr	Ala	Ser 235	Leu	Ile	Leu	Leu	Trp 240
Lys	Val	Thr	Ala	Thr 245	Gly	Phe	Gln	Gln	Cys 250	Ser	Leu	Ile	Asp	Gly 255
Arg	Ser	Val	Thr	Pro 260	Leu	Gln	Ala	Ser	Gly 265	Gly	Leu	Val	Leu	Leu 270
Glu	Glu	Met	Leu	Ala 275	Leu	Gly	Asn	Asn	His 280	Phe	Ile	Gly	Phe	Val 285
Asn	Asp	Ser	Val	Thr 290	Lys	Ser	Ile	Val	Ala 295	Leu	Arg	Leu	Thr	Leu 300
Val	Val	Lys	Val	Ser 305	Thr	Cys	Val	Pro	Gly 310	Glu	Ser	His	Ala	Asn 315
Asp	Leu	Glu	Cys	Ser 320	Gly	Lys	Gly	Lys	Cys 325	Thr	Thr	Lys	Pro	Ser 330
Glu	Ala	Thr	Phe	Ser 335	Cys	Thr	Cys	Glu	Glu 340	Gln	Tyr	Val	Gly	Thr 345
Phe	Cys	Glu	Glu	Tyr 350	Asp	Ala	Cys	Gln	Arg 355	Lys	Pro	Cys	Gln	Asn 360
Asn	Ala	Ser	Cys	Ile 365	Asp	Ala	Asn	Glu	Lys 370	Gln	Asp	Gly	Ser	Asn 375
Phe	Thr	Cys	Val	Cys 380	Leu	Pro	Gly	Tyr	Thr 385	Gly	Glu	Leu	Cys	Gln 390
Ser	Lys	Ile	Asp	Tyr 395	Cys	Ile	Leu	Asp	Pro 400	Cys	Arg	Asn	Gly	Ala 405

Thr Cys Ile Ser	Ser Leu Ser Gly Phe	Thr Cys Gln Cys Pro Glu
410		420
Gly Tyr Phe Gly	Ser Ala Cys Glu Glu	Lys Val Asp Pro Cys Ala
425		435
Ser Ser Pro Cys	Gln Asn Asn Gly Thr	Cys Tyr Val Asp Gly Val
440		450
His Phe Thr Cys	Asn Cys Ser Pro Gly	Phe Thr Gly Pro Thr Cys
455		465
Ala Gln Leu Ile	Asp Phe Cys Ala Leu	Ser Pro Cys Ala His Gly
470		480
Thr Cys Arg Ser	Val Gly Thr Ser Tyr	Lys Cys Leu Cys Asp Pro
485		495
Gly Tyr His Gly	Leu Tyr Cys Glu Glu	Glu Tyr Asn Glu Cys Leu
500		510
Ser Ala Pro Cys	Leu Asn Ala Ala Thr	Cys Arg Asp Leu Val Asn
515		525
Gly Tyr Glu Cys	Val Cys Leu Ala Glu	Tyr Lys Gly Thr His Cys
530		540
Glu Leu Tyr Lys	Asp Pro Cys Ala Asn	Val Ser Cys Leu Asn Gly
545		555
Ala Thr Cys Asp	Ser Asp Gly Leu Asn	Gly Thr Cys Ile Cys Ala
560		570
Pro Gly Phe Thr	Gly Glu Glu Cys Asp	Ile Asp Ile Asn Glu Cys
575		585
Asp Ser Asn Pro	Cys His His Gly Gly	Ser Cys Leu Asp Gln Pro
590		600
Asn Gly Tyr Asn	Cys His Cys Pro His	Gly Trp Val Gly Ala Asn
605		615
Cys Glu Ile His	Leu Gln Trp Lys Ser	Gly His Met Ala Glu Ser
620		630
Leu Thr Asn Met	Pro Arg His Ser Leu	Tyr Ile Ile Ile Gly Ala
635		645
Leu Cys Val Ala	Phe Ile Leu Met Leu	Ile Ile Leu Ile Val Gly
650		660
Ile Cys Arg Ile	Ser Arg Ile Glu Tyr	Gln Gly Ser Ser Arg Pro
665		675
Ala Tyr Glu Glu	Phe Tyr Asn Cys Arg	Ser Ile Asp Ser Glu Phe
680		690
Ser Asn Ala Ile	Ala Ser Ile Arg His	Ala Arg Phe Gly Lys Lys

695

700

705

Ser Arg Pro Ala Met Tyr Asp Val Ser Pro Ile Ala Tyr Glu Asp
710 715 720

Tyr Ser Pro Asp Asp Lys Pro Leu Val Thr Leu Ile Lys Thr Lys
725 730 735

Asp Leu

<210> 16

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 16

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<210> 17

<211> 41

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide Probe

<400> 17

caggaaacag ctatgaccac ctgcacacct gcaaataccat t 41

<210> 18

<211> 508

<212> DNA

<213> Homo Sapien

<400> 18

ctctggaagg tcacggccac aggattccaa cagtgtctccc tcatagatgg 50

acgaaagtgt gacccccctt tcaggctttc aggggggactg gtctctctgg 100

aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150

tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggagaagg 200

cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagggttcag 250

gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300

tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350

gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400

aagatgggag caatttcacc tgtgtttgcc ttctgggta tactggagag 450

ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

FOUO"4464650

taggggag 508

<210> 19
<211> 508
<212> DNA
<213> Homo Sapien

<400> 19
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acgaaagtgt gacccccctt tcaggctttc agggggactg gtctctctgg 100
aggagatgct cgccttgggg aataatcact ttattggttt tgtgaatgat 150
tctgtgacta agtctattgt ggctttgcgc ttaactctgg tggatgaagg 200
cagcacctgt gtgccggggg agagtcacgc aaatgacttg gagtggtcag 250
gaaaaggaaa atgcaccacg aagccgtcag aggcaacttt ttctgtacc 300
tgtgaggagc agtacgtggg tactttctgt gaagaatacg atgcttgcca 350
gaggaaacct tgccaaaaca acgcgagctg tattgatgca aatgaaaagc 400
aagatgggag caatttcacc tgtgtttgcc ttctgggta tactggagag 450
ctttgccaac cgaactgaga ttggagcgaa cgacctacac cgaactgaga 500

taggggag 508

<210> 20
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Oligonucleotide Probe

<400> 20
ctctggaagg tcacggccac agg 23

<210> 21
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 21
ctcagttcgg ttggcaaagc tctc 24

<210> 22
<211> 69
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 22

cagtgtctccc tcatagatgg acgaaagtgt gacccccctt tcaggcgaga 50

gctttgccaa ccgaactga 69

<210> 23

<211> 1520

<212> DNA

<213> Homo Sapien

<400> 23

gctgagtctg ctgtctctgc tgctgtctgt ccagcctgta acctgtgctt 50

acaccacgcc agggcccccc agagccctca ccacgtctgg cgccccaga 100

gcccacacca tgccgggcac ctacgtctcc tcgaccacac tcagtagtcc 150

cagcaccag ggctgtcaag agcaggcacg ggccctgatg cgggacttcc 200

cgctcgtgga cggccacaac gacctgcccc tggctctaag gcagggtttac 250

cagaaagggc tacaggatgt taacctgcgc aatttcagct acggccagac 300

cagcctggac aggccttagag atggcctcgt gggcgcccag ttctggtcag 350

cctatgtgcc atgccagacc caggaccggg atgcctgcg cctcaccctg 400

gagcagattg acctatacag ccgcattgtg gctcctatt ctgagctgga 450

gcttgtgacc tcggctaaag ctctgaacga cactcagaaa ttggcctgcc 500

tcacgggtgt agaggggtggc cactcgtctg acaatagcct ctccatctta 550

cgtaccttct acatgctggg agtgcgtac ctgacgtca cccacacctg 600

caacacaccc tgggcagaga gctccgctaa gggcgccac tccttctaca 650

acaacatcag cgggctgact gactttggtg agaaggtggt ggcagaaatg 700

aaccgcctgg gcatgatggt agacttatcc catgtctcag atgctgtggc 750

acggcgggcc ctggaagtgt cacaggcacc tgtgatcttc tcccactcgg 800

ctgcccgggg tgtgtgcaac agtgcctgga atgttccctga tgacatcctg 850

cagcttctga agaagaacgg tggcgtcgtg atggtgtctt tgtccatggg 900

agtaatacag tgcaaccat cagccaatgt gtccactgtg gcagatcact 950

tcgaccacat caaggctgtc attggatcca agttcatcgg gattggtgga 1000

gattatgatg gggccggcaa attccctcag gggctggaag acgtgtccac 1050

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agcttcaggg tgctcttcgt ggaaacctgc tgcgggtctt cagacaagtg 1150

gaaaagggtac aggaagaaaa caaatggcaa agcccccttgg aggacaagtt 1200
cccggatgag cagctgagca gttcctgcca ctccgacctc tcacgtctgc 1250
gtcagagaca gagtctgact tcaggccagg aactcactga gattcccata 1300
cactggacag ccaagttacc agccaagtgg tcagtctcag agtctctccc 1350
ccacatggcc ccagtccttg cagttgtggc caccttccca gtccttattc 1400
tgtggctctg atgaccagc tagtctgcc agatgtcact gtagcaagcc 1450
acagacaccc cacaagttc ccctgtgtg caggcacaaa tatttctga 1500
aataaatggt ttggacatag 1520

<210> 24
<211> 433
<212> PRT
<213> Homo Sapien

<400> 24
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Thr Gln Gly Leu Gln Glu Gln Ala Arg Ala Leu Met Arg Asp Phe
20 25 30
Pro Leu Val Asp Gly His Asn Asp Leu Pro Leu Val Leu Arg Gln
35 40 45
Val Tyr Gln Lys Gly Leu Gln Asp Val Asn Leu Arg Asn Phe Ser
50 55 60
Tyr Gly Gln Thr Ser Leu Asp Arg Leu Arg Asp Gly Leu Val Gly
65 70 75
Ala Gln Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg
80 85 90
Asp Ala Leu Arg Leu Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg
95 100 105
Met Cys Ala Ser Tyr Ser Glu Leu Glu Leu Val Thr Ser Ala Lys
110 115 120
Ala Leu Asn Asp Thr Gln Lys Leu Ala Cys Leu Ile Gly Val Glu
125 130 135
Gly Gly His Ser Leu Asp Asn Ser Leu Ser Ile Leu Arg Thr Phe
140 145 150
Tyr Met Leu Gly Val Arg Tyr Leu Thr Leu Thr His Thr Cys Asn
155 160 165
Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly Val His Ser Phe Tyr
170 175 180

FOR ESO "H6H650"

Asn	Asn	Ile	Ser	Gly	Leu	Thr	Asp	Phe	Gly	Glu	Lys	Val	Val	Ala
				185					190					195
Glu	Met	Asn	Arg	Leu	Gly	Met	Met	Val	Asp	Leu	Ser	His	Val	Ser
				200					205					210
Asp	Ala	Val	Ala	Arg	Arg	Ala	Leu	Glu	Val	Ser	Gln	Ala	Pro	Val
				215					220					225
Ile	Phe	Ser	His	Ser	Ala	Ala	Arg	Gly	Val	Cys	Asn	Ser	Ala	Arg
				230					235					240
Asn	Val	Pro	Asp	Asp	Ile	Leu	Gln	Leu	Leu	Lys	Lys	Asn	Gly	Gly
				245					250					255
Val	Val	Met	Val	Ser	Leu	Ser	Met	Gly	Val	Ile	Gln	Cys	Asn	Pro
				260					265					270
Ser	Ala	Asn	Val	Ser	Thr	Val	Ala	Asp	His	Phe	Asp	His	Ile	Lys
				275					280					285
Ala	Val	Ile	Gly	Ser	Lys	Phe	Ile	Gly	Ile	Gly	Gly	Asp	Tyr	Asp
				290					295					300
Gly	Ala	Gly	Lys	Phe	Pro	Gln	Gly	Leu	Glu	Asp	Val	Ser	Thr	Tyr
				305					310					315
Pro	Val	Leu	Ile	Glu	Glu	Leu	Leu	Ser	Arg	Gly	Trp	Ser	Glu	Glu
				320					325					330
Glu	Leu	Gln	Gly	Val	Leu	Arg	Gly	Asn	Leu	Leu	Arg	Val	Phe	Arg
				335					340					345
Gln	Val	Glu	Lys	Val	Gln	Glu	Glu	Asn	Lys	Trp	Gln	Ser	Pro	Leu
				350					355					360
Glu	Asp	Lys	Phe	Pro	Asp	Glu	Gln	Leu	Ser	Ser	Ser	Cys	His	Ser
				365					370					375
Asp	Leu	Ser	Arg	Leu	Arg	Gln	Arg	Gln	Ser	Leu	Thr	Ser	Gly	Gln
				380					385					390
Glu	Leu	Thr	Glu	Ile	Pro	Ile	His	Trp	Thr	Ala	Lys	Leu	Pro	Ala
				395					400					405
Lys	Trp	Ser	Val	Ser	Glu	Ser	Ser	Pro	His	Met	Ala	Pro	Val	Leu
				410					415					420
Ala	Val	Val	Ala	Thr	Phe	Pro	Val	Leu	Ile	Leu	Trp	Leu		
				425					430					

<210> 25

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 25
agttctggtc agcctatgtg cc 22

<210> 26
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 26
cgtgatggtg tctttgtcca tggg 24

<210> 27
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 27
ctccaccaat cccgatgaac ttgg 24

<210> 28
<211> 50
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 28
gagcagattg acctcatacg ccgcatgtgt gcctcctatt ctgagctgga 50

<210> 29
<211> 1416
<212> DNA
<213> Homo Sapien

<400> 29
aaaacctata aatattccgg attattcata ccgtcccacc atcgggcgcg 50
gatccgcggc cgcaattct aaaccaacat gccgggcacc tacgtccct 100
cgaccacact cagtagtccc agcaccacagg gcctgcaaga gcaggcacgg 150
gccctgatgc gggacttccc gctcgtggac ggccacaacg acctgccct 200
ggtcctaagg caggtttacc agaaagggt acaggatgtt aacctgcgca 250
atttcagcta cggccagacc agcctggaca ggcttagaga tggcctcgtg 300
ggcgcccagt tctggtcagc ctatgtgcc a tgccagaccc aggaccggga 350
tgccctgcgc ctcaccctgg agcagattga cctcatacgc cgcattgtgtg 400

FTESD"4454550

cctcctattc tgagctggag cttgtgacct cggctaaagc tctgaacgac 450
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 caatagcctc tccatcttac gtaccttcta catgctggga gtgcgctacc 550
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 gcccttgga ggacaagttc ccggatgagc agctgagcag ttcctgccac 1200
 tccgacctct cacgtctgcy tcagagacag agtctgactt caggccagga 1250
 actcactgag attcccatc actggacagc caagttacca gccaaagtgg 1300
 cagtctcaga gtcctcccc caccctgaca aaactcacac atgcccaccg 1350
 tgcccagcac ctgaactcct ggggggaccg tcagtcttcc tcttcccccc 1400
 aaaaccaag gacacc 1416

<210> 30

<211> 446

<212> PRT

<213> Homo Sapien

<400> 30

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Thr	Gln	Gly	Leu	Gln	Glu	Gln	Ala	Arg	Ala	Leu	Met	Arg	Asp	Phe
			20						25					30
Pro	Leu	Val	Asp	Gly	His	Asn	Asp	Leu	Pro	Leu	Val	Leu	Arg	Gln
			35						40					45
Val	Tyr	Gln	Lys	Gly	Leu	Gln	Asp	Val	Asn	Leu	Arg	Asn	Phe	Ser

				50					55					60
Tyr	Gly	Gln	Thr	Ser 65	Leu	Asp	Arg	Leu	Arg 70	Asp	Gly	Leu	Val	Gly 75
Ala	Gln	Phe	Trp	Ser 80	Ala	Tyr	Val	Pro	Cys 85	Gln	Thr	Gln	Asp	Arg 90
Asp	Ala	Leu	Arg	Leu 95	Thr	Leu	Glu	Gln	Ile 100	Asp	Leu	Ile	Arg	Arg 105
Met	Cys	Ala	Ser	Tyr 110	Ser	Glu	Leu	Glu	Leu 115	Val	Thr	Ser	Ala	Lys 120
Ala	Leu	Asn	Asp	Thr 125	Gln	Lys	Leu	Ala	Cys 130	Leu	Ile	Gly	Val	Glu 135
Gly	Gly	His	Ser	Leu 140	Asp	Asn	Ser	Leu	Ser 145	Ile	Leu	Arg	Thr	Phe 150
Tyr	Met	Leu	Gly	Val 155	Arg	Tyr	Leu	Thr	Leu 160	Thr	His	Thr	Cys	Asn 165
Thr	Pro	Trp	Ala	Glu 170	Ser	Ser	Ala	Lys	Gly 175	Val	His	Ser	Phe	Tyr 180
Asn	Asn	Ile	Ser	Gly 185	Leu	Thr	Asp	Phe	Gly 190	Glu	Lys	Val	Val	Ala 195
Glu	Met	Asn	Arg	Leu 200	Gly	Met	Met	Val	Asp 205	Leu	Ser	His	Val	Ser 210
Asp	Ala	Val	Ala	Arg 215	Arg	Ala	Leu	Glu	Val 220	Ser	Gln	Ala	Pro	Val 225
Ile	Phe	Ser	His	Ser 230	Ala	Ala	Arg	Gly	Val 235	Cys	Asn	Ser	Ala	Arg 240
Asn	Val	Pro	Asp	Asp 245	Ile	Leu	Gln	Leu	Leu 250	Lys	Lys	Asn	Gly	Gly 255
Val	Val	Met	Val	Ser 260	Leu	Ser	Met	Gly	Val 265	Ile	Gln	Cys	Asn	Pro 270
Ser	Ala	Asn	Val	Ser 275	Thr	Val	Ala	Asp	His 280	Phe	Asp	His	Ile	Lys 285
Ala	Val	Ile	Gly	Ser 290	Lys	Phe	Ile	Gly	Ile 295	Gly	Gly	Asp	Tyr	Asp 300
Gly	Ala	Gly	Lys	Phe 305	Pro	Gln	Gly	Leu	Glu 310	Asp	Val	Ser	Thr	Tyr 315
Pro	Val	Leu	Ile	Glu 320	Glu	Leu	Leu	Ser	Arg 325	Gly	Trp	Ser	Glu	Glu 330
Glu	Leu	Gln	Gly	Val 335	Leu	Arg	Gly	Asn	Leu 340	Leu	Arg	Val	Phe	Arg 345

[illegible]

27

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 aaaaaaaaaa aaaaaaaaaa aaaaacaaaa aaaaaaaaaa 1790

<210> 32

<211> 422

<212> PRT

<213> Homo Sapien

<400> 32

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			20						25				30	
Ala	Pro	Arg	Ala	Gly	Ser	Gly	Ala	His	Thr	Ala	Val	Ile	Ser	Pro
			35						40				45	
Gln	Asp	Pro	Thr	Leu	Leu	Ile	Gly	Ser	Ser	Leu	Leu	Ala	Thr	Cys
			50						55				60	

Ser	Val	His	Gly	Asp 65	Pro	Pro	Gly	Ala	Thr 70	Ala	Glu	Gly	Leu	Tyr 75
Trp	Thr	Leu	Asn	Gly 80	Arg	Arg	Leu	Pro	Pro 85	Glu	Leu	Ser	Arg	Val 90
Leu	Asn	Ala	Ser	Thr 95	Leu	Ala	Leu	Ala	Leu 100	Ala	Asn	Leu	Asn	Gly 105
Ser	Arg	Gln	Arg	Ser 110	Gly	Asp	Asn	Leu	Val 115	Cys	His	Ala	Arg	Asp 120
Gly	Ser	Ile	Leu	Ala 125	Gly	Ser	Cys	Leu	Tyr 130	Val	Gly	Leu	Pro	Pro 135
Glu	Lys	Pro	Val	Asn 140	Ile	Ser	Cys	Trp	Ser 145	Lys	Asn	Met	Lys	Asp 150
Leu	Thr	Cys	Arg	Trp 155	Thr	Pro	Gly	Ala	His 160	Gly	Glu	Thr	Phe	Leu 165
His	Thr	Asn	Tyr	Ser 170	Leu	Lys	Tyr	Lys	Leu 175	Arg	Trp	Tyr	Gly	Gln 180
Asp	Asn	Thr	Cys	Glu 185	Glu	Tyr	His	Thr	Val 190	Gly	Pro	His	Ser	Cys 195
His	Ile	Pro	Lys	Asp 200	Leu	Ala	Leu	Phe	Thr 205	Pro	Tyr	Glu	Ile	Trp 210
Val	Glu	Ala	Thr	Asn 215	Arg	Leu	Gly	Ser	Ala 220	Arg	Ser	Asp	Val	Leu 225
Thr	Leu	Asp	Ile	Leu 230	Asp	Val	Val	Thr	Thr 235	Asp	Pro	Pro	Pro	Asp 240
Val	His	Val	Ser	Arg 245	Val	Gly	Gly	Leu	Glu 250	Asp	Gln	Leu	Ser	Val 255
Arg	Trp	Val	Ser	Pro 260	Pro	Ala	Leu	Lys	Asp 265	Phe	Leu	Phe	Gln	Ala 270
Lys	Tyr	Gln	Ile	Arg 275	Tyr	Arg	Val	Glu	Asp 280	Ser	Val	Asp	Trp	Lys 285
Val	Val	Asp	Asp	Val 290	Ser	Asn	Gln	Thr	Ser 295	Cys	Arg	Leu	Ala	Gly 300
Leu	Lys	Pro	Gly	Thr 305	Val	Tyr	Phe	Val	Gln 310	Val	Arg	Cys	Asn	Pro 315
Phe	Gly	Ile	Tyr	Gly 320	Ser	Lys	Lys	Ala	Gly 325	Ile	Trp	Ser	Glu	Trp 330
Ser	His	Pro	Thr	Ala 335	Ala	Ser	Thr	Pro	Arg 340	Ser	Glu	Arg	Pro	Gly 345
Pro	Gly	Gly	Gly	Ala	Cys	Glu	Pro	Arg	Gly	Gly	Glu	Pro	Ser	Ser

	350		355		360									
Gly	Pro	Val	Arg	Arg	Glu	Leu	Lys	Gln	Phe	Leu	Gly	Trp	Leu	Lys
				365					370					375
Lys	His	Ala	Tyr	Cys	Ser	Asn	Leu	Ser	Phe	Arg	Leu	Tyr	Asp	Gln
				380					385					390
Trp	Arg	Ala	Trp	Met	Gln	Lys	Ser	His	Lys	Thr	Arg	Asn	Gln	Asp
				395					400					405
Glu	Gly	Ile	Leu	Pro	Ser	Gly	Arg	Arg	Gly	Thr	Ala	Arg	Gly	Pro
				410					415					420

Ala Arg

<210> 33
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 33
 cccgcccgcac gtgcacgtga gcc 23

<210> 34
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 34
 tgagccagcc caggaactgc ttg 23

<210> 35
 <211> 50
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 35
 caagtgcgct gcaaccctt tggcatctat ggctccaaga aagccgggat 50

<210> 36
 <211> 1771
 <212> DNA
 <213> Homo Sapien

<400> 36
 cccacgcgtc cgctgggtgtt agatcgagca accctctaaa agcagtttag 50

agtggtaaaa aaaaaaaaaa acacacccaaa cgctcgcagc cacaaaaggg 100
 atgaaatttc ttctggacat cctcctgctt ctcccgttac tgategtctg 150
 ctccctagag tccttcgtga agctttttat tcctaagagg agaaaatcag 200
 tcaccggcga aatcgtgctg attacaggag ctgggcatgg aattgggaga 250
 ctgactgcct atgaatttgc taaacttaaa agcaagctgg ttctctggga 300
 tataaataag catggactgg aggaaacagc tgccaaatgc aagggactgg 350
 gtgccaaggt tcataccttt gtggtagact gcagcaaccg agaagatatt 400
 tacagctctg caaagaaggt gaaggcagaa attggagatg ttagtatttt 450
 agtaaataat gctggtgtag tctatacatc agatttgttt gctacacaag 500
 atcctcagat tgaaaagact tttgaagtta atgtacttgc acatttctgg 550
 actacaaagg catttcttcc tgcaatgacg aagaataacc atggccatat 600
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 cttactgttc aagcaagttt gctgctgttg gatttcataa aactttgaca 700
 gatgaactgg ctgccttaca aataactgga gtcaaaacaa catgtctgtg 750
 tcctaatttc gtaaacactg gcttcatcaa aaatccaagt acaagtttgg 800
 gaccactctt ggaacctgag gaagtggtaa acaggctgat gcatgggatt 850
 ctgactgagc agaagatgat ttttattcca tcttctatag cttttttaac 900
 aacattggaa aggatccttc ctgagcgttt cctggcagtt ttaaaacgaa 950
 aaatcagtgt taagtttgat gcagttattg gatataaaat gaaagcgcaa 1000
 taagcaccta gttttctgaa aactgattta ccaggtttag gttgatgtca 1050
 tctaatagtg ccagaatttt aatgtttgaa cttctgtttt ttctaattat 1100
 cccatttctt tcaatatcat ttttgaggct ttggcagtct tcatttacta 1150
 ccacttgttc tttagccaaa agctgattac atatgatata aacagagaaa 1200
 tacctttaga ggtgacttta aggaaaatga agaaaaagaa ccaaatgac 1250
 tttattaaaa taatttccaa gattatttgt ggctcacctg aaggctttgc 1300
 aaaatttgta ccataaccgt ttatttaaca tatattttta tttttgattg 1350
 cacttaaatt ttgtataatt tgtgtttctt tttctgttct acataaaatc 1400
 agaaacttca agctctctaa ataaaatgaa ggactatatc tagtggtatt 1450
 tcacaatgaa tatcatgaac tctcaatggg taggtttcat cctacccatt 1500

gccactctgt ttctgagag atacctcaca ttccaatgcc aaacatttct 1550
gcacagggaa gctagaggtg gatacacgtg ttgcaagtat aaaagcatca 1600
ctgggattta aggagaattg agagaatgta cccacaaatg gcagcaataa 1650
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aaaaaaaaaa aaaaaaaaaa a 1771

<210> 37
<211> 300
<212> PRT
<213> Homo Sapien

<400> 37

Met	Lys	Phe	Leu	Leu	Asp	Ile	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Ile	1	5	10	15
Val	Cys	Ser	Leu	Glu	Ser	Phe	Val	Lys	Leu	Phe	Ile	Pro	Lys	Arg	20	25	30	
Arg	Lys	Ser	Val	Thr	Gly	Glu	Ile	Val	Leu	Ile	Thr	Gly	Ala	Gly	35	40	45	
His	Gly	Ile	Gly	Arg	Leu	Thr	Ala	Tyr	Glu	Phe	Ala	Lys	Leu	Lys	50	55	60	
Ser	Lys	Leu	Val	Leu	Trp	Asp	Ile	Asn	Lys	His	Gly	Leu	Glu	Glu	65	70	75	
Thr	Ala	Ala	Lys	Cys	Lys	Gly	Leu	Gly	Ala	Lys	Val	His	Thr	Phe	80	85	90	
Val	Val	Asp	Cys	Ser	Asn	Arg	Glu	Asp	Ile	Tyr	Ser	Ser	Ala	Lys	95	100	105	
Lys	Val	Lys	Ala	Glu	Ile	Gly	Asp	Val	Ser	Ile	Leu	Val	Asn	Asn	110	115	120	
Ala	Gly	Val	Val	Tyr	Thr	Ser	Asp	Leu	Phe	Ala	Thr	Gln	Asp	Pro	125	130	135	
Gln	Ile	Glu	Lys	Thr	Phe	Glu	Val	Asn	Val	Leu	Ala	His	Phe	Trp	140	145	150	
Thr	Thr	Lys	Ala	Phe	Leu	Pro	Ala	Met	Thr	Lys	Asn	Asn	His	Gly	155	160	165	
His	Ile	Val	Thr	Val	Ala	Ser	Ala	Ala	Gly	His	Val	Ser	Val	Pro	170	175	180	
Phe	Leu	Leu	Ala	Tyr	Cys	Ser	Ser	Lys	Phe	Ala	Ala	Val	Gly	Phe	185	190	195	
His	Lys	Thr	Leu	Thr	Asp	Glu	Leu	Ala	Ala	Leu	Gln	Ile	Thr	Gly				

FOR THE "H6TH50"

TO THE "H6H650"

200	205	210
Val Lys Thr Thr Cys Leu Cys Pro Asn Phe	Val Asn Thr Gly Phe	
215	220	225
Ile Lys Asn Pro Ser Thr Ser Leu Gly Pro Thr Leu Glu Pro Glu		
230	235	240
Glu Val Val Asn Arg Leu Met His Gly Ile Leu Thr Glu Gln Lys		
245	250	255
Met Ile Phe Ile Pro Ser Ser Ile Ala Phe Leu Thr Thr Leu Glu		
260	265	270
Arg Ile Leu Pro Glu Arg Phe Leu Ala Val Leu Lys Arg Lys Ile		
275	280	285
Ser Val Lys Phe Asp Ala Val Ile Gly Tyr Lys Met Lys Ala Gln		
290	295	300

<210> 38
 <211> 23
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 38
 ggtgaaggca gaaattggag atg 23

<210> 39
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 39
 atcccatgca tcagcctggt tacc 24

<210> 40
 <211> 48
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 40
 gctgggtgtag tctatacatc agatttggtt gctacacaag atcctcag 48

<210> 41
 <211> 1377
 <212> DNA
 <213> Homo Sapien

096474-033101

<210> 42

<211> 243
 <212> PRT
 <213> Homo Sapien

<400> 42

Met	Arg	Pro	Leu	Leu	Val	Leu	Leu	Leu	Leu	Gly	Leu	Ala	Ala	Gly	1	5	10	15
Ser	Pro	Pro	Leu	Asp	Asp	Asn	Lys	Ile	Pro	Ser	Leu	Cys	Pro	Gly	20	25	30	
His	Pro	Gly	Leu	Pro	Gly	Thr	Pro	Gly	His	His	Gly	Ser	Gln	Gly	35	40	45	
Leu	Pro	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Arg	Asp	Gly	Ala	Pro	Gly	50	55	60	
Ala	Pro	Gly	Glu	Lys	Gly	Glu	Gly	Gly	Arg	Pro	Gly	Leu	Pro	Gly	65	70	75	
Pro	Arg	Gly	Asp	Pro	Gly	Pro	Arg	Gly	Glu	Ala	Gly	Pro	Ala	Gly	80	85	90	
Pro	Thr	Gly	Pro	Ala	Gly	Glu	Cys	Ser	Val	Pro	Pro	Arg	Ser	Ala	95	100	105	
Phe	Ser	Ala	Lys	Arg	Ser	Glu	Ser	Arg	Val	Pro	Pro	Pro	Ser	Asp	110	115	120	
Ala	Pro	Leu	Pro	Phe	Asp	Arg	Val	Leu	Val	Asn	Glu	Gln	Gly	His	125	130	135	
Tyr	Asp	Ala	Val	Thr	Gly	Lys	Phe	Thr	Cys	Gln	Val	Pro	Gly	Val	140	145	150	
Tyr	Tyr	Phe	Ala	Val	His	Ala	Thr	Val	Tyr	Arg	Ala	Ser	Leu	Gln	155	160	165	
Phe	Asp	Leu	Val	Lys	Asn	Gly	Glu	Ser	Ile	Ala	Ser	Phe	Phe	Gln	170	175	180	
Phe	Phe	Gly	Gly	Trp	Pro	Lys	Pro	Ala	Ser	Leu	Ser	Gly	Gly	Ala	185	190	195	
Met	Val	Arg	Leu	Glu	Pro	Glu	Asp	Gln	Val	Trp	Val	Gln	Val	Gly	200	205	210	
Val	Gly	Asp	Tyr	Ile	Gly	Ile	Tyr	Ala	Ser	Ile	Lys	Thr	Asp	Ser	215	220	225	
Thr	Phe	Ser	Gly	Phe	Leu	Val	Tyr	Ser	Asp	Trp	His	Ser	Ser	Pro	230	235	240	
Val	Phe	Ala																

<210> 43
 <211> 24

<212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 43
 tacaggccca gtcaggacca gggg 24

 <210> 44
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 44
 agccagcctc gctctcgg 18

 <210> 45
 <211> 18
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 45
 gtctgcgatc aggtctgg 18

 <210> 46
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 46
 gaaagaggca atggattcgc 20

 <210> 47
 <211> 24
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Synthetic oligonucleotide probe

 <400> 47
 gattacact tgccagcaca gcac 24

 <210> 48
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 48

ggagcaccac caactggagg gtccggagta gcgagcgccc cgaag 45

<210> 49

<211> 1876

<212> DNA

<213> Homo Sapien

<400> 49

ctcttttgtc caccagccca gcctgactcc tggagattgt gaatagctcc 50
atccagcctg agaaacaagc cgggtggctg agccaggctg tgcacggagc 100
acctgacggg cccaacagac ccatgctgca tccagagacc tcccctggcc 150
gggggcatct cctggctgtg ctcttgcccc tccttggcac cacctgggca 200
gagggtgtggc caccagct gcaggagcag gctccgatgg ccggagccct 250
gaacaggaag gagagtttct tgctcctctc cctgcacaac cgcttgcgca 300
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cccgagcctg gcatccggcc tgtggcgcac cctgcaagtg ggctggaaca 450
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tggtttgcag aggggcagcg gtacagccac gcggcaggag agtgtgctcg 550
caacgccacc tgcaccact acacgcagct cgtgtgggccc acctcaagcc 600
agctgggctg tgggcggcac ctgtgctctg caggccagac agcgatagaa 650
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gacaatcatc cctataaga aggggtgcctg gtgttcgctc tgcacagcca 750
gtgtctcagg ctgcttcaaa gcctgggacc atgcaggggg gctctgtgag 800
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gcttcatggt gtcttcagag gcagacacct attacagagc caggatgaaa 1100
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ggacatcctc gccttctatc tgggccgcct ggagaccacc aacgaggtga 1200
 ctgacagtga cttcgagacc aggaacttct ggatcgggct cacctacaag 1250
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 aactggaacg accagcgtg caaaacccga aaccgttaca tctgccagtt 1450
 tgcccaggag cacatctccc ggtggggccc agggctctga ggcctgacca 1500
 catggctccc tcgctgccc tgggagcacc ggctctgctt acctgtctgc 1550
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 agaggtctca gaccttgac aatgccagaa gttgggcaga gagaggcagg 1650
 gagggcagtg agggccaggg agtgagtgtt agaagaagct ggggcccttc 1700
 gcctgctttt gattgggaag atgggcttca attagatggc gaaggagagg 1750
 acaccgccag tggccaaaa aggtgctct cttccacctg gccagaccc 1800
 tgtggggcag cggagcttcc ctgtggcatg aacccacgg ggtattaaat 1850
 tatgaatcag ctgaaaaaaaa aaaaaa 1876

<210> 50
 <211> 455
 <212> PRT
 <213> Homo Sapien

<400> 50
 Met Leu His Pro Glu Thr Ser Pro Gly Arg Gly His Leu Leu Ala
 1 5 10 15
 Val Leu Leu Ala Leu Leu Gly Thr Thr Trp Ala Glu Val Trp Pro
 20 25 30
 Pro Gln Leu Gln Glu Gln Ala Pro Met Ala Gly Ala Leu Asn Arg
 35 40 45
 Lys Glu Ser Phe Leu Leu Leu Ser Leu His Asn Arg Leu Arg Ser
 50 55 60
 Trp Val Gln Pro Pro Ala Ala Asp Met Arg Arg Leu Asp Trp Ser
 65 70 75
 Asp Ser Leu Ala Gln Leu Ala Gln Ala Arg Ala Ala Leu Cys Gly
 80 85 90
 Ile Pro Thr Pro Ser Leu Ala Ser Gly Leu Trp Arg Thr Leu Gln
 95 100 105
 Val Gly Trp Asn Met Gln Leu Leu Pro Ala Gly Leu Ala Ser Phe

	110		115		120
Val Glu Val Val	Ser Leu Trp Phe Ala	Glu Gly Gln Arg Tyr Ser			
	125	130			135
His Ala Ala Gly	Glu Cys Ala Arg Asn	Ala Thr Cys Thr His Tyr			
	140	145			150
Thr Gln Leu Val	Trp Ala Thr Ser Ser	Gln Leu Gly Cys Gly Arg			
	155	160			165
His Leu Cys Ser	Ala Gly Gln Thr Ala	Ile Glu Ala Phe Val Cys			
	170	175			180
Ala Tyr Ser Pro	Gly Gly Asn Trp Glu	Val Asn Gly Lys Thr Ile			
	185	190			195
Ile Pro Tyr Lys	Lys Gly Ala Trp Cys	Ser Leu Cys Thr Ala Ser			
	200	205			210
Val Ser Gly Cys	Phe Lys Ala Trp Asp	His Ala Gly Gly Leu Cys			
	215	220			225
Glu Val Pro Arg	Asn Pro Cys Arg Met	Ser Cys Gln Asn His Gly			
	230	235			240
Arg Leu Asn Ile	Ser Thr Cys His Cys	His Cys Pro Pro Gly Tyr			
	245	250			255
Thr Gly Arg Tyr	Cys Gln Val Arg Cys	Ser Leu Gln Cys Val His			
	260	265			270
Gly Arg Phe Arg	Glu Glu Glu Cys Ser	Cys Val Cys Asp Ile Gly			
	275	280			285
Tyr Gly Gly Ala	Gln Cys Ala Thr Lys	Val His Phe Pro Phe His			
	290	295			300
Thr Cys Asp Leu	Arg Ile Asp Gly Asp	Cys Phe Met Val Ser Ser			
	305	310			315
Glu Ala Asp Thr	Tyr Tyr Arg Ala Arg	Met Lys Cys Gln Arg Lys			
	320	325			330
Gly Gly Val Leu	Ala Gln Ile Lys Ser	Gln Lys Val Gln Asp Ile			
	335	340			345
Leu Ala Phe Tyr	Leu Gly Arg Leu Glu	Thr Thr Asn Glu Val Thr			
	350	355			360
Asp Ser Asp Phe	Glu Thr Arg Asn Phe	Trp Ile Gly Leu Thr Tyr			
	365	370			375
Lys Thr Ala Lys	Asp Ser Phe Arg Trp	Ala Thr Gly Glu His Gln			
	380	385			390
Ala Phe Thr Ser	Phe Ala Phe Gly Gln	Pro Asp Asn His Gly Leu			
	395	400			405

094454-03101

acgtggaggt caccgccagc aacagtaaga aattcatcat cctgaagaca 1700
gatgtgcttg tgcggcctca gaaggcaggg aaagatgtca caggaagccc 1750
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<210> 55
<211> 694
<212> PRT
<213> Homo Sapien

<400> 55
Met Leu Leu Leu Leu Gly Leu Cys Leu Gly Leu Ser Leu Cys Val
1 5 10 15
Gly Ser Gln Glu Glu Ala Gln Ser Trp Gly His Ser Ser Glu Gln
20 25 30
Asp Gly Leu Arg Val Pro Arg Gln Val Arg Leu Leu Gln Arg Leu
35 40 45
Lys Thr Lys Pro Leu Met Thr Glu Phe Ser Val Lys Ser Thr Ile
50 55 60
Ile Ser Arg Tyr Ala Phe Thr Thr Val Ser Cys Arg Met Leu Asn
65 70 75
Arg Ala Ser Glu Asp Gln Asp Ile Glu Phe Gln Met Gln Ile Pro
80 85 90
Ala Ala Ala Phe Ile Thr Asn Phe Thr Met Leu Ile Gly Asp Lys
95 100 105
Val Tyr Gln Gly Glu Ile Thr Glu Arg Glu Lys Lys Ser Gly Asp
110 115 120

101500-4464650

Arg Val Lys Glu	Lys Arg Asn Lys Thr	Thr Glu Glu Asn Gly Glu	125	130	135
Lys Gly Thr Glu	Ile Phe Arg Ala Ser	Ala Val Ile Pro Ser Lys	140	145	150
Asp Lys Ala Ala	Phe Phe Leu Ser Tyr	Glu Glu Leu Leu Gln Arg	155	160	165
Arg Leu Gly Lys	Tyr Glu His Ser Ile	Ser Val Arg Pro Gln Gln	170	175	180
Leu Ser Gly Arg	Leu Ser Val Asp Val	Asn Ile Leu Glu Ser Ala	185	190	195
Gly Ile Ala Ser	Leu Glu Val Leu Pro	Leu His Asn Ser Arg Gln	200	205	210
Arg Gly Ser Gly	Arg Gly Glu Asp Asp	Ser Gly Pro Pro Pro Ser	215	220	225
Thr Val Ile Asn	Gln Asn Glu Thr Phe	Ala Asn Ile Ile Phe Lys	230	235	240
Pro Thr Val Val	Gln Gln Ala Arg Ile	Ala Gln Asn Gly Ile Leu	245	250	255
Gly Asp Phe Ile	Ile Arg Tyr Asp Val	Asn Arg Glu Gln Ser Ile	260	265	270
Gly Asp Ile Gln	Val Leu Asn Gly Tyr	Phe Val His Tyr Phe Ala	275	280	285
Pro Lys Asp Leu	Pro Pro Leu Pro Lys	Asn Val Val Phe Val Leu	290	295	300
Asp Ser Ser Ala	Ser Met Val Gly Thr	Lys Leu Arg Gln Thr Lys	305	310	315
Asp Ala Leu Phe	Thr Ile Leu His Asp	Leu Arg Pro Gln Asp Arg	320	325	330
Phe Ser Ile Ile	Gly Phe Ser Asn Arg	Ile Lys Val Trp Lys Asp	335	340	345
His Leu Ile Ser	Val Thr Pro Asp Ser	Ile Arg Asp Gly Lys Val	350	355	360
Tyr Ile His His	Met Ser Pro Thr Gly	Gly Thr Asp Ile Asn Gly	365	370	375
Ala Leu Gln Arg	Ala Ile Arg Leu Leu	Asn Lys Tyr Val Ala His	380	385	390
Ser Gly Ile Gly	Asp Arg Ser Val Ser	Leu Ile Val Phe Leu Thr	395	400	405
Asp Gly Lys Pro	Thr Val Gly Glu Thr	His Thr Leu Lys Ile Leu			

410	415	420
Asn Asn Thr Arg Glu Ala Ala Arg Gly Gln Val Cys Ile Phe Thr 425	430	435
Ile Gly Ile Gly Asn Asp Val Asp Phe Arg Leu Leu Glu Lys Leu 440	445	450
Ser Leu Glu Asn Cys Gly Leu Thr Arg Arg Val His Glu Glu Glu 455	460	465
Asp Ala Gly Ser Gln Leu Ile Gly Phe Tyr Asp Glu Ile Arg Thr 470	475	480
Pro Leu Leu Ser Asp Ile Arg Ile Asp Tyr Pro Pro Ser Ser Val 485	490	495
Val Gln Ala Thr Lys Thr Leu Phe Pro Asn Tyr Phe Asn Gly Ser 500	505	510
Glu Ile Ile Ile Ala Gly Lys Leu Val Asp Arg Lys Leu Asp His 515	520	525
Leu His Val Glu Val Thr Ala Ser Asn Ser Lys Lys Phe Ile Ile 530	535	540
Leu Lys Thr Asp Val Pro Val Arg Pro Gln Lys Ala Gly Lys Asp 545	550	555
Val Thr Gly Ser Pro Arg Pro Gly Gly Asp Gly Glu Gly Asp Thr 560	565	570
Asn His Ile Glu Arg Leu Trp Ser Tyr Leu Thr Thr Lys Glu Leu 575	580	585
Leu Ser Ser Trp Leu Gln Ser Asp Asp Glu Pro Glu Lys Glu Arg 590	595	600
Leu Arg Gln Arg Ala Gln Ala Leu Ala Val Ser Tyr Arg Phe Leu 605	610	615
Thr Pro Phe Thr Ser Met Lys Leu Arg Gly Pro Val Pro Arg Met 620	625	630
Asp Gly Leu Glu Glu Ala His Gly Met Ser Ala Ala Met Gly Pro 635	640	645
Glu Pro Val Val Gln Ser Val Arg Gly Ala Gly Thr Gln Pro Gly 650	655	660
Pro Leu Leu Lys Lys Pro Asn Ser Val Lys Lys Lys Gln Asn Lys 665	670	675
Thr Lys Lys Arg His Gly Arg Asp Gly Val Phe Pro Leu His His 680	685	690
Leu Gly Ile Arg		

<210> 56
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 56
gtgggaacca aactccggca gacc 24

<210> 57
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 57
cacatcgagc gtctctgg 18

<210> 58
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 58
agccgctcct tctccggttc atcg 24

<210> 59
<211> 48
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 59
tggaaggacc acttgatata agtcactcca gacagcatca gggatggg 48

<210> 60
<211> 1413
<212> DNA
<213> Homo Sapien

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ccagtgtgct gcggcagcgg cggcggcggc gcctcccggg ctccggcttc 100
tgctgttgct cttctccgcc gcggcactga tccccacagg tgatgggcag 150
aatctgttta cgaaagacgt gacagtgatc gagggagagg ttgcgaccat 200

cagttgccaa gtcaataaga gtgacgactc tgtgattcag ctactgaatc 250
ccaacaggca gaccatttat ttcagggact tcaggccttt gaaggacagc 300
aggtttcagt tgctgaatth ttctagcagt gaactcaaag tatcattgac 350
aaacgtctca atttctgatg aaggaagata cttttgccag ctctataaccg 400
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ctgtgaagct tcaaacatag tggggaaagc tcaactcgat tatatgctgt 1000
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accaccacca ccaccaccac caccatcctt accatcatca cagattcccg 1100
agcagggtgaa gaaggctcga tcagggcagt ggatcatgcc gtgatcgggtg 1150
gcgtcgtggc ggtggtggtg ttcccatgc tgtgcttgct catcattctg 1200
gggcgctatt ttgccagaca taaagggtaca tacttcactc atgaagccaa 1250
aggagccgat gacgcagcag acgcagacac agctataatc aatgcagaag 1300
gaggacagaa caactccgaa gaaaagaaag agtacttcat ctagatcagc 1350
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acagtgatat tgg 1413

<210> 61
<211> 440
<212> PRT
<213> Homo Sapien

<400> 61
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1 5 10 15

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Ile Val Gly Lys	Ala His Ser Asp Tyr Met Leu Tyr Val Tyr Asp	
320	325	330
Pro Pro Thr Thr	Ile Pro Pro Pro Thr Thr Thr Thr Thr Thr	
335	340	345
Thr Thr Thr Thr	Thr Thr Ile Leu Thr Ile Ile Thr Asp Ser Arg	
350	355	360
Ala Gly Glu Glu	Gly Ser Ile Arg Ala Val Asp His Ala Val Ile	
365	370	375
Gly Gly Val Val	Ala Val Val Val Phe Ala Met Leu Cys Leu Leu	
380	385	390
Ile Ile Leu Gly	Arg Tyr Phe Ala Arg His Lys Gly Thr Tyr Phe	
395	400	405
Thr His Glu Ala	Lys Gly Ala Asp Asp Ala Ala Asp Ala Asp Thr	
410	415	420
Ala Ile Ile Asn	Ala Glu Gly Gly Gln Asn Asn Ser Glu Glu Lys	
425	430	435
Lys Glu Tyr Phe	Ile	
440		

<210> 62
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 62
 ggcttctgct gttgctcttc tccg 24

<210> 63
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 63
 gtacactgtg accagtcagc 20

<210> 64
 <211> 20
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<220>
 <223> Synthetic oligonucleotide probe

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110	115	120
Ala Leu Arg Leu	Ala Gly Leu Gly Leu Gln Gln Leu Asp Glu Gly	
125	130	135
Leu Phe Ser Arg	Leu Arg Asn Leu His Asp Leu Asp Val Ser Asp	
140	145	150
Asn Gln Leu Glu	Arg Val Pro Pro Val Ile Arg Gly Leu Arg Gly	
155	160	165
Leu Thr Arg Leu	Arg Leu Ala Gly Asn Thr Arg Ile Ala Gln Leu	
170	175	180
Arg Pro Glu Asp	Leu Ala Gly Leu Ala Ala Leu Gln Glu Leu Asp	
185	190	195
Val Ser Asn Leu	Ser Leu Gln Ala Leu Pro Gly Asp Leu Ser Gly	
200	205	210
Leu Phe Pro Arg	Leu Arg Leu Leu Ala Ala Ala Arg Asn Pro Phe	
215	220	225
Asn Cys Val Cys	Pro Leu Ser Trp Phe Gly Pro Trp Val Arg Glu	
230	235	240
Ser His Val Thr	Leu Ala Ser Pro Glu Glu Thr Arg Cys His Phe	
245	250	255
Pro Pro Lys Asn	Ala Gly Arg Leu Leu Leu Glu Leu Asp Tyr Ala	
260	265	270
Asp Phe Gly Cys	Pro Ala Thr Thr Thr Thr Ala Thr Val Pro Thr	
275	280	285
Thr Arg Pro Val	Val Arg Glu Pro Thr Ala Leu Ser Ser Ser Leu	
290	295	300
Ala Pro Thr Trp	Leu Ser Pro Thr Ala Pro Ala Thr Glu Ala Pro	
305	310	315
Ser Pro Pro Ser	Thr Ala Pro Pro Thr Val Gly Pro Val Pro Gln	
320	325	330
Pro Gln Asp Cys	Pro Pro Ser Thr Cys Leu Asn Gly Gly Thr Cys	
335	340	345
His Leu Gly Thr	Arg His His Leu Ala Cys Leu Cys Pro Glu Gly	
350	355	360
Phe Thr Gly Leu	Tyr Cys Glu Ser Gln Met Gly Gln Gly Thr Arg	
365	370	375
Pro Ser Pro Thr	Pro Val Thr Pro Arg Pro Pro Arg Ser Leu Thr	
380	385	390
Leu Gly Ile Glu	Pro Val Ser Pro Thr Ser Leu Arg Val Gly Leu	
395	400	405

009444-083104

Gln Arg Tyr Leu Gln Gly Ser Ser Val	Gln Leu Arg Ser Leu Arg
410	415 420
Leu Thr Tyr Arg Asn Leu Ser Gly Pro Asp Lys Arg Leu Val Thr	
425	430 435
Leu Arg Leu Pro Ala Ser Leu Ala Glu Tyr Thr Val Thr Gln Leu	
440	445 450
Arg Pro Asn Ala Thr Tyr Ser Val Cys Val Met Pro Leu Gly Pro	
455	460 465
Gly Arg Val Pro Glu Gly Glu Glu Ala Cys Gly Glu Ala His Thr	
470	475 480
Pro Pro Ala Val His Ser Asn His Ala Pro Val Thr Gln Ala Arg	
485	490 495
Glu Gly Asn Leu Pro Leu Leu Ile Ala Pro Ala Leu Ala Ala Val	
500	505 510
Leu Leu Ala Ala Leu Ala Ala Val Gly Ala Ala Tyr Cys Val Arg	
515	520 525
Arg Gly Arg Ala Met Ala Ala Ala Ala Gln Asp Lys Gly Gln Val	
530	535 540
Gly Pro Gly Ala Gly Pro Leu Glu Leu Glu Gly Val Lys Val Pro	
545	550 555
Leu Glu Pro Gly Pro Lys Ala Thr Glu Gly Gly Gly Glu Ala Leu	
560	565 570
Pro Ser Gly Ser Glu Cys Glu Val Pro Leu Met Gly Phe Pro Gly	
575	580 585
Pro Gly Leu Gln Ser Pro Leu His Ala Lys Pro Tyr Ile	
590	595

<210> 70

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 70

ccctccactg cccacccgac tg 22

<210> 71

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

[illegible]

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 ggtggggcgg aagaagccca tgcacagcaa ccactactac cagacggtga 800
 tcttcgacac ggagttcgtg aacctctacg accacttcaa catgttcacc 850
 ggcaagttct actgctacgt gcccggcctc tactttctca gcctcaacgt 900
 gcacacctgg aaccagaagg agacctacct gcacatcatg aagaacgagg 950
 aggaggtggt gatcttggtc ggcgaggtgg ggcaccgcag catcatgcaa 1000
 agccagagcc tgatgctgga gctgagagag caggaccagg tgtgggtacg 1050
 cctctacaag ggcgaacgtg agaacgccat cttcagcgag gagctggaca 1100
 cctacatcac cttcagtggc tacctgggtc agcacgccac cgagccctag 1150
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 tgacccacc gcctcttccc cgatccctgg actccgactc cctggctttg 1250
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 cccagatccc gcagcctctg gagagagctg acggcagatg aaatcaccag 1350
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<210> 78

<211> 281

<212> PRT

<213> Homo Sapien

<400> 78

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Leu	Ala	Phe	Ala	Ser	Gly	Leu	Val	Leu	Ser	Arg	Val	Pro	His	Val
				20					25					30
Gln	Gly	Glu	Gln	Gln	Glu	Trp	Glu	Gly	Thr	Glu	Glu	Leu	Pro	Ser
				35					40					45
Pro	Pro	Asp	His	Ala	Glu	Arg	Ala	Glu	Glu	Gln	His	Glu	Lys	Tyr
				50					55					60
Arg	Pro	Ser	Gln	Asp	Gln	Gly	Leu	Pro	Ala	Ser	Arg	Cys	Leu	Arg
				65					70					75
Cys	Cys	Asp	Pro	Gly	Thr	Ser	Met	Tyr	Pro	Ala	Thr	Ala	Val	Pro
				80					85					90
Gln	Ile	Asn	Ile	Thr	Ile	Leu	Lys	Gly	Glu	Lys	Gly	Asp	Arg	Gly
				95					100					105
Asp	Arg	Gly	Leu	Gln	Gly	Lys	Tyr	Gly	Lys	Thr	Gly	Ser	Ala	Gly

<211> 45
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic oligonucleotide probe

<400> 81
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<210> 82
<211> 2284
<212> DNA
<213> Homo Sapien

<400> 82
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ggcgccgggg tcctctcgac gccagagaga aatctcatca tctgtgcagc 150
cttcttaaag caaactaaga ccagagggag gattatcctt gacctttgaa 200
gacaaaaact aaactgaaat ttaaaatggt cttcggggga gaaggagct 250
tgacttacac tttggtaata atttgcttcc tgacactaag gctgtctgct 300
agtcagaatt gcctcaaaaa gagtctagaa gatgttgta ttgacatcca 350
gtcatctctt tctaaggga tcagaggcaa tgagcccgtg tatacttcaa 400
ctcaagaaga ctgcattaat tcttgctggt caacaaaaaa catatcaggg 450
gacaaagcat gtaacttgat gatcttcgac actcgaaaaa cagctagaca 500
acccaactgc tacctatctt tctgtcccaa cgaggaagcc tgtccattga 550
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ttgaccagaa atttgccaag ccaagagtta cccaggaag attctctctt 650
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TTCTTCTCTT

Ile	Cys	Phe	Leu	Thr	Leu	Arg	Leu	Ser	Ala	Ser	Gln	Asn	Cys	Leu	20	25	30
Lys	Lys	Ser	Leu	Glu	Asp	Val	Val	Ile	Asp	Ile	Gln	Ser	Ser	Leu	35	40	45
Ser	Lys	Gly	Ile	Arg	Gly	Asn	Glu	Pro	Val	Tyr	Thr	Ser	Thr	Gln	50	55	60
Glu	Asp	Cys	Ile	Asn	Ser	Cys	Cys	Ser	Thr	Lys	Asn	Ile	Ser	Gly	65	70	75
Asp	Lys	Ala	Cys	Asn	Leu	Met	Ile	Phe	Asp	Thr	Arg	Lys	Thr	Ala	80	85	90
Arg	Gln	Pro	Asn	Cys	Tyr	Leu	Phe	Phe	Cys	Pro	Asn	Glu	Glu	Ala	95	100	105
Cys	Pro	Leu	Lys	Pro	Ala	Lys	Gly	Leu	Met	Ser	Tyr	Arg	Ile	Ile	110	115	120
Thr	Asp	Phe	Pro	Ser	Leu	Thr	Arg	Asn	Leu	Pro	Ser	Gln	Glu	Leu	125	130	135
Pro	Gln	Glu	Asp	Ser	Leu	Leu	His	Gly	Gln	Phe	Ser	Gln	Ala	Val	140	145	150
Thr	Pro	Leu	Ala	His	His	His	Thr	Asp	Tyr	Ser	Lys	Pro	Thr	Asp	155	160	165
Ile	Ser	Trp	Arg	Asp	Thr	Leu	Ser	Gln	Lys	Phe	Gly	Ser	Ser	Asp	170	175	180
His	Leu	Glu	Lys	Leu	Phe	Lys	Met	Asp	Glu	Ala	Ser	Ala	Gln	Leu	185	190	195
Leu	Ala	Tyr	Lys	Glu	Lys	Gly	His	Ser	Gln	Ser	Ser	Gln	Phe	Ser	200	205	210
Ser	Asp	Gln	Glu	Ile	Ala	His	Leu	Leu	Pro	Glu	Asn	Val	Ser	Ala	215	220	225
Leu	Pro	Ala	Thr	Val	Ala	Val	Ala	Ser	Pro	His	Thr	Thr	Ser	Ala	230	235	240
Thr	Pro	Lys	Pro	Ala	Thr	Leu	Leu	Pro	Thr	Asn	Ala	Ser	Val	Thr	245	250	255
Pro	Ser	Gly	Thr	Ser	Gln	Pro	Gln	Leu	Ala	Thr	Thr	Ala	Pro	Pro	260	265	270
Val	Thr	Thr	Val	Thr	Ser	Gln	Pro	Pro	Thr	Thr	Leu	Ile	Ser	Thr	275	280	285
Val	Phe	Thr	Arg	Ala	Ala	Ala	Thr	Leu	Gln	Ala	Met	Ala	Thr	Thr	290	295	300
Ala	Val	Leu	Thr	Thr	Thr	Phe	Gln	Ala	Pro	Thr	Asp	Ser	Lys	Gly			

CONFIDENTIAL

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<400> 87
caccqtaqct gggagcgcac tcac 24
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<220>
<223> Synthetic oligonucleotide probe

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<400> 88
 agtgtaagtc aagctccc 18
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<220>
<223> Synthetic oligonucleotide probe

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<400> 89
gcttcttgac actaaggctg tctgctagtc agaattgcct caaaaagag 49
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<210> 90
<211> 957
<212> DNA
<213> Homo Sapien
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<400> 90
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cattccagat gcacccctgt ccagtgtgc ctatagcatc cgcagcatcg 150
gggagaggcc tgtcctcaaa gctccagtc ccaaaaggca aaaatgtgac 200
cactggactc cctgcccata tgacacctat gcctacaggt tactcagcgg 250
aggtggcaga agcaagtacg ccaaaatctg ctttgaggat aacctactta 300
tgggagaaca gctgggaaat gttgccagag gaataaacat tgccattgtc 350
aactatgtaa ctgggaatgt gacagcaaca cgatgttttg atatgtatga 400
aggcgataac tctggaccga tgacaaagtt tattcagagt gctgctccaa 450
aatccctgct cttcatgggtg acctatgacg acggaagcac aagactgaat 500
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tcccttccga aattcagaga gaaaagatca accactctga tgctaagaac 650
aacagatatt ctggctggcc tgcagagatc cagatagaag gctgcatacc 700
caaagaacga agctgacact gcagggtcct gagtaaattgt gttctgtata 750
aacaattgca gctggaatcg ctcaagaatc ttatttttct aaatccaaca 800
gccccatatt gatgagtatt ttgggtttgt tgtaaaccac tgaacatttg 850
ctagttgtat caaatcttgg tacgcagtat ttttatacca gtattttatg 900
tagtgaagat gtcaattagc aggaaactaa aatgaatgga aattcttaaa 950
aaaaaaa 957

<210> 91
<211> 235
<212> PRT
<213> Homo Sapien

<400> 91
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Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg
35 40 45
Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg
50 55 60
Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala
65 70 75
Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile
80 85 90
Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val
95 100 105
Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn
110 115 120
Val Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser
125 130 135
Gly Pro Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu
140 145 150
Leu Phe Met Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn
155 160 165

F01230"4464650

Asp Ala Lys Asn Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg
 170 175 180
 Asn Met Lys Phe Arg Ser Ser Trp Val Phe Ile Ala Ala Lys Gly
 185 190 195
 Leu Glu Leu Pro Ser Glu Ile Gln Arg Glu Lys Ile Asn His Ser
 200 205 210
 Asp Ala Lys Asn Asn Arg Tyr Ser Gly Trp Pro Ala Glu Ile Gln
 215 220 225
 Ile Glu Gly Cys Ile Pro Lys Glu Arg Ser
 230 235

<210> 92
 <211> 20
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 92
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<210> 93
 <211> 18
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 93
 aggcttgga ctccttc 18

<210> 94
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 94
 aagattcttg agcgattcca gctg 24

<210> 95
 <211> 47
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic oligonucleotide probe

<400> 95
 aatccctgct cttcatggtg acctatgacg acggaagcac aagactg 47

T07E80" the 650

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 101
gggcagaaat ccagccact 19

<210> 102
<211> 18
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 102
cccttcgcct gcttttga 18

<210> 103
<211> 27
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 103
gccatctaatt tgaagcccat cttccca 27

<210> 104
<211> 19
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 104
ctggcgggtgt cctctcctt 19

<210> 105
<211> 21
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 105
cctcgggtctc ctcatctgtg a 21

<210> 106
<211> 20
<212> DNA
<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 106

tggcccagct gacgagccct 20

<210> 107

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 107

ctcataggca ctcggttctg g 21

<210> 108

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 108

tggtcccag cttggaaga 19

<210> 109

<211> 30

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 109

cagctcttgg ctgtctccag tatgtaccca 30

<210> 110

<211> 21

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<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 110

gatgcctctg ttctgcaca t 21

<210> 111

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 111

107530" 1154450

107280-116110

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<210> 112

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 112

ctatgaaatt aaccctcact aaagggaccg cagctgggtg accgtgta 48

<210> 113

<211> 43

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 113

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<210> 114

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

<400> 114

ctatgaaatt aaccctcact aaagggactc gagacaccac ctgaccaca 48

<210> 115

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic oligonucleotide probe

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<210> 116

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic Oligonucleotide probe

<400> 116

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<210> 117

<211> 48
 <212> DNA
 <213> Artificial Sequence

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 <223> Synthetic oligonucleotide probe

 <400> 117
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 <210> 118
 <211> 48
 <212> DNA
 <213> Artificial Sequence

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